

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|--|--|--|
| Applicant's or agent's file reference P016766WO | FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below. | |
| International application No. PCT/GB2004/001549 | International filing date (day/month/year) 08/04/2004 | (Earliest) Priority Date (day/month/year) 11/04/2003 |
| Applicant NEXTENDERS (INDIA) PRIVATE LIMITED | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

SYSTEM AND METHOD FOR AUTHENTICATING DOCUMENTS

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/001549

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L9/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| Y | US 2002/026583 A1 (BROWN RICHARD ET AL) 28 February 2002 (2002-02-28) paragraphs '0079! - '0086!; figure 4 | 1-34 |
| X | ----- | 35, 36 |
| Y | EP 1 081 890 A (NIPPON TELEGRAPH & TELEPHONE) 7 March 2001 (2001-03-07) paragraphs '0031!, '0035! - '0037!, '0042!; figure 1 | 1-34 |
| A | WO 97/12460 A (DOCUMENT AUTHENTICATION SYSTEM) 3 April 1997 (1997-04-03) abstract; figures 7,8 | 1-36 |

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

6 July 2004

Date of mailing of the international search report

14/07/2004

Name and mailing address of the ISA

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Authorized officer

Cretaine, P

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/001549

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
|---|----|---------------------|----|----------------------------|--|---------------------|
| US 2002026583 | A1 | 28-02-2002 | GB | 2366470 A | | 06-03-2002 |
| EP 1081890 | A | 07-03-2001 | CA | 2317139 A1 | | 01-03-2001 |
| | | | EP | 1081890 A2 | | 07-03-2001 |
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| | | | JP | 2001142398 A | | 25-05-2001 |
| WO 9712460 | A | 03-04-1997 | US | 5748738 A | | 05-05-1998 |
| | | | AU | 714220 B2 | | 23-12-1999 |
| | | | AU | 7105896 A | | 17-04-1997 |
| | | | BR | 9610720 A | | 21-12-1999 |
| | | | CA | 2232170 A1 | | 03-04-1997 |
| | | | CN | 1202288 A | | 16-12-1998 |
| | | | CZ | 9800787 A3 | | 14-10-1998 |
| | | | EP | 0850523 A1 | | 01-07-1998 |
| | | | HU | 9802232 A2 | | 28-01-1999 |
| | | | IL | 123663 A | | 10-03-2002 |
| | | | JP | 11512841 T | | 02-11-1999 |
| | | | NO | 981170 A | | 13-05-1998 |
| | | | NZ | 318941 A | | 29-07-1999 |
| | | | PL | 326075 A1 | | 17-08-1998 |
| | | | TR | 9800462 T1 | | 22-06-1998 |
| | | | US | 6237096 B1 | | 22-05-2001 |
| | | | WO | 9712460 A1 | | 03-04-1997 |
| | | | US | 6367013 B1 | | 02-04-2002 |
| | | | US | 2004093493 A1 | | 13-05-2004 |
| | | | US | 2001002485 A1 | | 31-05-2001 |

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/001549

International filing date (day/month/year)
08.04.2004

Priority date (day/month/year)
11.04.2003

International Patent Classification (IPC) or both national classification and IPC
H04L9/32

Applicant
NEXTENDERS (INDIA) PRIVATE LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/001549

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/001549

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|-------|
| Novelty (N) | Yes: Claims | 1-34 |
| | No: Claims | 35,36 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-36 |
| Industrial applicability (IA) | Yes: Claims | 1-36 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Re Item V.

1 The following document is referred to in this communication:

D1 : US 2002/026583 A1 (BROWN RICHARD ET AL) 28 February 2002 (2002-02-28)

D2 : EP 1 081 890 A (NIPPON TELEGRAPH & TELEPHONE) 7 March 2001 (2001-03-07)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not inventive in the sense of Article 33(3) PCT.

2.2 Document D1 discloses (the references in parenthesis applying to this document) a data processing system for distributing and authenticating documents from a plurality of parties ("sender", "sender's certificate") to a recipient data processing apparatus ("receiving fax machine"), the system comprising:

- a plurality of documents distribution devices (figure 7, "fax machines") each being operable to generate an original hash value from the content of an electronic file containing a document to be distributed ("digest of the document created by the sender using a hash algorithm")
- a data communications network ("communications network 158") operable to provide a facility to communicate each of the original hash values to the recipient data processing apparatus,
- the recipient data processing apparatus being operable:
 - to receive the original hash values from each of the plurality of documents distribution devices via the communication network (figure 5; "the hash algorithm 84 is used to create a digest of the scanned document"),
- wherein after a predetermined event ("document being scanned at 102 into the sending fax machine"), the plurality of document distribution devices are operable:
 - to communicate each of the respective electronic files to the recipient data processing apparatus ("a fax machine in a local bank that should only receive faxes from other remote branches of the same bank"),
- the recipient data processing apparatus being operable:
 - to generate a comparative hash value from the content of the electronic file

containing the document received from each of the document distribution devices (column 9, lines 6-11),

- to determine whether or not the documents received by the recipient data processing apparatus have changed from a comparison of at least one of the original hash values and the comparative hash values (column 9, lines 12-16).

2.3 The differences between the subject-matter of claim 1 and the disclosure of D1 are that in claim 1, at the recipient device:

- an original super hash value is generated from the hash values corresponding to several received documents and communicated to the distribution devices,
- a comparative super hash value is generated from the comparative hash values
- the comparative super hash and the original super hash are compared to determine whether or not the documents have changed.

2.4 These features solve the problem of providing each distribution device the assurance that none of the other distribution devices have changed their documents.

2.5 The feature of calculating a super hash value from hash values of documents is described in document D2 (see paragraphs 35,36: "unified digest"). Moreover the purpose of building such a super hash value in D2 is to prove that the plurality of documents existed together at a certain time (see D2, paragraph 42). Therefore this features provides in D2 the same - advantages as in the present application. The skilled person would therefore regard it as a normal option to include this feature in the system described in document D1 in order to solve the problem posed.

3. INDEPENDENT CLAIM 12:

The only difference between the subject-matter of claim 12 and the disclosure of D1 is that the electronic document is transmitted by the document distribution device after its hash value. This simple modification of the system does not involve an inventive step.

4. INDEPENDENT CLAIM 19:

Claim 19 relates to a recipient data processing device which substantially contains the same technical features as the recipient device defined in the system of claim 1. Therefore claim 19 does not involve an inventive step.

5. INDEPENDENT CLAIM 26:

Claim 26 substantially contain the same features as claim 1 but in terms of a method claim. Claim 26 therefore does not involve an inventive step.

6. INDEPENDENT CLAIM 28:

Claim 28 substantially contain the same features as claim 12 but in terms of a method claim. Claim 28 therefore does not involve an inventive step.

7. INDEPENDENT CLAIM 30:

Claim 30 substantially contains the same technical features as claim 30. Claim 30 therefore does not involve an inventive step.

8. INDEPENDENT CLAIM 34:

Claim 34 contains substantially the same features as claim 1. Claim 34 therefore does not involve an inventive step.

9. INDEPENDENT CLAIMS 35 AND 36:

These claims do not contain any features which could assess novelty vis-à-vis D1, the references to the description and drawings being no technical features in themselves.

Remarks: Although claims 1 and 34, resp. claims 26 and 28 have been drafted as separate independent system claims, resp. method claims, they appear to relate effectively to the same subject-matter and to differ from each other only with in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/001549

6 PCT.